



Creating Entrepreneurial Space: Talking Through Multi-Voices, Reflections on Emerging Debates

Enterprise Education Competitions: A Theoretically Flawed Intervention?

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CHAPTER 2

ENTERPRISE EDUCATION COMPETITIONS: A THEORETICALLY FLAWED INTERVENTION?

Catherine Brentnall, Iván Diego Rodríguez and
Nigel Culkin

ABSTRACT

The demand for including enterprise in the education system, at all levels and for all pupils is now a global phenomenon. Within this context, the use of competitions and competitive learning activities is presented as a popular and effective vehicle for learning. The purpose of this chapter is to illustrate how a realist method of enquiry – which utilises theory as the unit of analysis – can shed new light on the assumed and unintended outcomes of enterprise education competitions. The case developed here is that there are inherent flaws in assuming that competitions will ‘work’ in the ways set out in policy and guidance. Some of the most prevalent stated outcomes – that competitions will motivate and reward young people, that they will enable the development of entrepreneurial skills, and that learners will be inspired by their peers – are challenged by theory from psychology and education. The issue at stake is that the expansion of enterprise education policy into primary and secondary education increases the likelihood that more learners will be sheep dipped in competitions, and competitive activities, without a clear recognition of the potential unintended effects. In this chapter, we employ a realist-informed approach to critically evaluate the theoretical basis that underpins the use of competitions

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and competitive learning activities in school-based enterprise education. We believe that our findings and subsequent recommendations will provide those who promote and practice the use of competitions with a richer, more sophisticated picture of the potential flaws within such activities.

Keywords: Enterprise; entrepreneurship; education; competitions; realist evaluation; challenges; learning

INTRODUCTION

Enterprise education has been championed in international policies, adopted by national governments, delivered by enterprise promotion groups and prescribed to teachers as an effective way of inspiring students to develop skills for, and interest in, the world of work and business. In English education policy, enterprise education is defined for schools as the knowledge, skills and behaviours related to 'enterprise capability, financial capability and economic and business understanding' (Davies, 2002; Long & Foster, 2016). In European policy, entrepreneurship education is the term more commonly used, and is broadly defined as a combination of knowledge, skills and mind-sets which support learners' personal development and prepares them for a more successful transition into the job market as an employee or as a self-employed person (Bacigalupo, Kampylis, Punie, & Van den Brande, 2016; European Commission/EACEA/Eurydice, 2016).

In school settings, it is more likely that teachers will embrace such education if it has broad aims relating to personal, 'internal', skills development rather than self-interested, 'external', entrepreneurial development (Komulainen, Naskali, Korhonen, & Keskitalo-Foley, 2014). The focus on personal development is also supported by arguments which underscore the relationship between soft skills and success in later life (Brunello & Schlotter, 2011; Duckworth & Yeager, 2015; Heckman & Kautz, 2012). Self-perception, motivation, perseverance, self-control, meta-cognitive strategies, social competencies, resilience/coping and creativity are part of the long list of non-cognitive skills apparently associated with positive outcomes in adult life encompassing personal (wellbeing, satisfaction with life), social (sense of belonging) and economic (employability, earnings, job satisfaction) spheres (Gutman & Schoon, 2013). As a consequence, public authorities have been willing to invest considerable amounts of taxpayers' money in programmes that purportedly enhance this set of soft skills. Essentially, the development of such skills provides a wider justification for the existence of enterprise beyond that based on economic utility (Pittaway & Cope, 2007), or based on ideology, where enterprise is conceived as a device 'to instill a deep and lasting commitment to free-market principles in the minds, habits, dreams and ambitions of young people everywhere' (JA, 2008a in Sukarieh & Tannock, 2009, p. 782).

ENTERPRISE EDUCATION COMPETITIONS: A SIGNATURE ACTIVITY

Competitions and competitive learning are the most visible methods in enterprise education (Brentnall, Diego, & Culkin, 2017). They are recommended as activities for careers and enterprise learning (Hooley, 2016), organised discretely during Global Entrepreneurship Week,¹ provided by charities through mini-company programmes² and promoted by influential stakeholders as the answer to social and economic woes.³ Indeed, *compete and pitch* is a practice which has become synonymous with enterprise education in the classroom, with traditional start-up methods (business or idea planning, pitches, competitions, events), adapted and applied across all levels of education (Komarkova, Gagliardi, Conrads, & Collado, 2015). The active participation of entrepreneurs and representatives from the world of work and business in these events has now led some authors to characterise such competitions as a paradigmatic and widespread example of school-mediated employer engagement (Mann & Kashefpakdel, 2014).

Enterprise education competitions are typically a team-based endeavour where young people compete within and between schools to develop proposals for a product or service, or implement these ideas, with performance to be judged in a competitive process. Competitions may be rolled out over a variable period of time with researchers distinguishing between short term business challenges or ‘one day competitions’, and longer-term competitions which take place over a term or more (Mann, Dawkins, & McKeown, 2017, p. 23). The short-term Enterprise Challenge has previously been described as the most frequent and popular way of developing enterprise in schools (McLarty, Highley, & Alderson, 2010). This model is identified as the ‘most observed’ enterprise activity in schools, despite less than half of teachers surveyed (39%) believing the activity is ‘effective’ (Mann, Dawkins, & McKeown, 2017, p. 23). While the definition of Enterprise Challenge days does not explicitly refer to competition, the professional experience of these authors (involvement in enterprise/entrepreneurship education in England and Spain at all levels of education), is that such activities are typically structured competitively. For example, a year group will undertake an idea development simulation (design a healthy snack brand, design a technology for the future, design an app, etc.) which climaxes in a presentation or pitch and one team being judged the ultimate ‘winner’ at the end of the event. The longer-term competition method is epitomised by the mini-company format. Often facilitated by external providers, the purpose of mini-company programmes is to develop students’ entrepreneurial mindsets through small-scale real economic activity (European Commission, 2005). The Junior Achievement-Young Enterprise (JA-YE), Company Programme is the most widespread example of this format and features extensively in European policy as an example of good practice (Brentnall et al., 2017).

The mainstream acceptance and proliferation of enterprise education competitions comes despite question marks hanging over their pedagogical basis (Honig, 2004), and the limited transferability and relevance of learning from competing to the day-to-day reality of start-up (Watson, McGowan, & Cooper,

2016). Indeed, it appears that the field of enterprise and entrepreneurship education is one where ‘action and intervention have raced far ahead of the theory, pedagogy and research needed to justify and explain it’ (Rideout & Gray, 2013, p. 346). Given the widespread promotion of competitions in enterprise education policy and practice, we apply a realist logic of enquiry to gain a better understanding of the factors at play which can affect the outcome patterns of this type of intervention.

BEYOND ‘WHAT WORKS?’

Why is the realist paradigm useful when exploring the effects of social programmes? Should policy makers not, after all, take a positivist approach, and make decisions about enterprise education programmes and interventions based on the results of experiments, randomised control trials (RCTs) and systematic reviews? It is some time since Hargreaves (1996), argued for an education profession modelled upon evidence-based medicine, with centralised organisation of educational research so that findings were developed cumulatively (Boyask, 2014). Such approaches have been espoused in education as the route to ‘evidence based practice’ (Goldacre, 2013), with a UK-based charity – the Education Endowment Foundation⁴ – set up in 2011 with the sole purpose of using RCTs as the evaluation strategy for programmes targeted at disadvantaged young people.

Conformity to the ‘What works?’ agenda in schools, and the limited methodological tools adopted by the Education Endowment Foundation suggest the scientific paradigm may have won out, in promotion terms at least (Boyask, 2016). However, Bryk (2015) identifies that average effect sizes alone fall short of explaining the variability of effects across a treatment group. He argues that what is at stake for practitioners and policy makers is understanding *variation* in educational outcomes and therefore being able to respond effectively to these variations. Statistics alone will not help explain how the preparation of teachers might produce/generate/cause the variation in outcomes, or why the impact is different depending on the type of school implementing the intervention, or why the intervention works better for some types of students but not others. This last question is critical. In medicine, it is recognised that every treatment may cause a potential adverse reaction in a subject, and these side effects are described to patients. There seems to be no equivalent effort to provide such explanations in evidence-based education, with treatments being described purely in terms of their benefits, and with little attention paid to the harm they might cause for different participants (Zhao, 2017). The boundary of this chapter is drawn around offering new insights on this question – what factors might influence outcomes for students? What contraindications, potential adverse reactions and side effects can be identified (and what may trigger them), which will help inform the competitions prescription in enterprise education? The realist paradigm can help support such an endeavour, as it represents a movement away from synthesising ‘what happened’, and towards understanding ‘*why* it happened’, because it is this theorising which provides the most useful research evidence to inform policy and practice (Jagosh, 2017).

WHAT IS REALIST EVALUATION?

Realist evaluation is a species of theory-driven evaluation, which is increasingly being harnessed by researchers wishing to throw more light on *why* (and in what circumstances) complex social interventions do or do not work (Pawson & Tilley, 2004). Realist evaluation is about theory testing and refinement, in that the approach and analysis always returns to core theories about *how* a programme or intervention (such as an enterprise education competition) is supposed to work and from this viewpoint interrogates ‘...is that basic plan sound, plausible, durable, practical and, above all, valid?’ (Pawson & Tilley, 2004, p. 2).

Policy makers and practitioners are more likely to be able to interpret and utilise *explanations* of *why* an intervention may (or may not) work better in one context or another, rather than trying to make decisions based on statistics, effect sizes and an array of moderators (Pawson, Greenhalgh, Harvey, & Walshe, 2005). It is this explanatory power which attracts these authors to realist evaluation as described by Pawson (2006). A crucial element of this approach is grounded in identifying *theories* which support (or refute) explanations of why complex interventions may (or may not) work in different circumstances. Thus, it offers one potential route to address weaknesses previously highlighted by Fayolle (2013), that not enough interest is taken in investigating possible explanations for contradictory results in studies, nor in relating research from enterprise and entrepreneurship education to theory from other fields.

Standards for realist review and synthesis are being developed to specify the steps and appropriate methods, just as they exist in systematic reviews (Wong et al., 2016). But realist evaluation and its philosophy, principles and methods, can also be adopted and adapted as a broad logic of enquiry, applied in a flexible, interpretative and iterative fashion and tailored to specific tasks, for example, isolating and investigating a particular policy (Pawson, 2006). It is in this way – isolating and investigating the theoretical basis of enterprise education competitions – that we harness a realist logic of enquiry.

DEFINING KEY REALIST CONCEPTS

Before we describe the research phases of this study, it is useful to summarise key concepts which have been crucial in informing the approach to this research.

Programme theory: Programmes are theory incarnate. That is, there will be a theory (or set of ideas), about what a programme or intervention is expected to do. The theory which may underpin the use and propagation of a particular intervention is rarely described and interventions are handed down to practitioners with the theory *implicit* in the organisation of the programme. A key task of the realist is to make this theory *explicit* (Pawson, 2006).

Context: This concept describes the features of the conditions in which programmes are introduced that are relevant to the operation of the programme mechanisms (Pawson & Tilley, 2004), such as cultural norms, the history of the community and participants, the nature and scope of existing social networks, geographic location effects, differences in resources and funding. Context can thus be broadly understood as ‘any existing condition that triggers and/or modifies the behaviour of a mechanism’ (Wong et al., 2013).

Mechanisms: Mechanisms are underlying entities, processes, or structures which operate in particular contexts to generate outcomes of interest. In realist ontology, mechanisms are ‘the agents of change’ and describe how the resources embedded in a program ‘influence the reasoning and ultimately the behaviour of program subjects’ (Pawson & Tilley, 2004). They are generally hidden, sensitive to variation and generate outcome patterns (Wong et al., 2013).

Outcomes: Outcome *patterns* comprise the intended and unintended consequences of programmes, resulting from the activation of different mechanisms in different contexts (Pawson & Tilley, 2004). The consideration of Context-Mechanism-Outcome (CMO) configurations is one of the fundamental ways that realist evaluation differs from other approaches. Realism first acknowledges that social programmes and interventions will have distinctly different outcome patterns in different contexts and for different people (Greenhalgh et al., 2015). Jagosh (2017), argues that the ontology and epistemology of realism offer policy makers and practitioners involved in designing, delivering and evaluating complex social interventions a philosophy and method which *better aligns knowledge with reality*. Realist ontology has *depth*: it enables a search for that which cannot be observed, which is difficult to measure, but which actually determines why, and in what circumstances, socially contingent programmes work, or not (Jagosh, 2017).

RESEARCH PHASES

Now we have briefly introduced some key realist concepts, we will talk through our research process. A criticism made of the adaptive, iterative application of realist principles is that it can make it hard for others to understand the process of research (Pawson & Tilley, 2004). Jagosh (2017), suggests the best counter to this is transparency and that researchers should describe what they did as clearly as possible. The following sections intend to capture the process of this study. We integrate theoretical development within these research phases, then we discuss the idea of an ‘enterprise education competitions fallacy’ before making concluding comments.

Phase 1 – Identifying an Initial Theatre of Study...

Realism rules out no data. The hierarchy of evidence that exists in meta-analytic and systematic review does not apply. Indeed, Pawson (2006, p. 50), asserts that ‘there is a clear need ... to abandon the notion of a single hierarchy of evidence’. Instead, what is needed is any method or evidence that delivers situation-specific wisdom about a programme and how it may, or may not work. The goal of being truly systematic therefore, would mean including data from ‘comparative research, historical research, discourse analysis, legislative enquiry, action research, emancipatory research and so on’ (Pawson, 2006, p. 50). Pawson acknowledges that this opportunity to study everything can lead researchers to become overwhelmed by data; therefore, identifying a focus is important. We reflected that the European Commission had been a consistent promoter of enterprise in education policy, with significantly less divergence and hiatus in overall policy, priority and resourcing than have national governments. The European Commission also offers a significant library of policy and guidance, starting from the Oslo Agenda (European Commission, 2006), and including the recent publication of the European Entrepreneurship Competence Framework

by the European Joint Research Centre ([Bacigalupo et al., 2016](#)), and state-of-the-art reports on policy, practice and provision in schools across Europe (European Commission Joint Research Centre, 2015). This body of work provides a significant, but contained, theatre of study through which the use of competitions could be explored.

Phase 2 – Data Extraction from European Policy and Guidance.

European policy documents from 2006 to 2016 were studied,⁵ searching for the inclusion of competitions, contests, prizes and awards. Where these search terms existed, the context of their inclusion was logged and direct comments collated, analysed and coded. At this stage, 19 categories were identified which related to an implicit benefit of competitions, ranging from short-term outcomes such as motivation and skill development, to long-term impacts such as starting a business or increased employability. Interim outcomes for students, which might reasonably be assumed to be observed and perceived by educators, were isolated to compare the benefits assumed in policy and guidance with theory from other fields which challenged the assumptions. The rationale here was twofold. First, [Guskey \(2002\)](#), states that it is the result of observing positive change in students that motivates educators to continue with a practice or innovation. By this logic, if competitions are a negative experience for their students, an educator may well lose interest in, or negatively perceive, enterprise more broadly (counter to the hopes of enterprise policy promoters). Second, it might also be reasonably assumed that if the expected short term or interim outcomes are not triggered then the chain of logic which underpins the use of competitions is more likely to break down and the longer-term benefits intended to cascade from individual, to community and society will not materialise. This initial study – described in [Brentnall et al. \(2017\)](#) – identified that policy and guidance makes the following assumptions: that competitions will motivate and reward students; that competitions develop students' entrepreneurial skills and that pupils will be inspired by their peers through the process.

Phase 3 – Surfacing the Logic of Enterprise Education Competitions

In the research to this point, these authors had not located a programme theory specifically built to identify and map out the sequence, hierarchy or relations between key components and the outcomes which enterprise education competitions are intended to generate. [Astbury and Leeuw \(2010\)](#), describe that while the terms *programme theory* and *programme logic* are often used interchangeably, they serve different functions, with logic referring to the way a programme fits together (a sequence of inputs, activities, outputs and outcomes), while theory goes a step further and attempts to build an explanatory account (of how, with whom and under what circumstances the programme works – or doesn't). A key element of the realist approach is to make the logic and theory of a programme of intervention explicit. In the absence of an explicit model for an intervention, 'the programme *is* the theory' and policy and guidance about an intervention should be mined for concepts, intervention components and intended outcomes to enable one to be constructed ([Pawson, 2006](#)). Information mined during Phase 2 was

contrasted against generic descriptions and/or diagrams of the way enterprise and entrepreneurship education is broadly expected to work and the outcomes it claims or seeks (Braag & Henry, 2011; European Commission, 2015; Lemus, 2015; McLarty, Highley, & Alderson., 2010; Williamson, Beadle, & Charalambous, 2013). Fig. 1 illustrates a synthesis of the broad logic models consulted in this study,⁶ and the categories of benefits mined from European Commission policy and guidance with regards to enterprise education competitions (Brentnall et al., 2017). It illustrates a logic for the use of competitions and how intervention components and resources are presented as combining to trigger positive individual change, which will cascade to organisational, economic and societal outcomes.

Phase 4 – Challenging the Programme Logic

Conceptualising the programme logic in this way guided a subsequent search for theoretical evidence which might challenge or refute the assumed logic of competitions. In realist parlance these theories are called Middle Range Theories and operate at a level of abstraction that facilitates understanding of an event as being an ‘instance of a more general class of happenings’ (Pawson, 2013, p. 89). Our strategy was to purposefully search for Middle Range Theories (Pawson, 2010), which might challenge the taken-for-granted assumptions about the benefits of enterprise education competitions and explain possible causes for mixed results found in empirical studies. Fig. 2 highlights how assumptions underpinning the

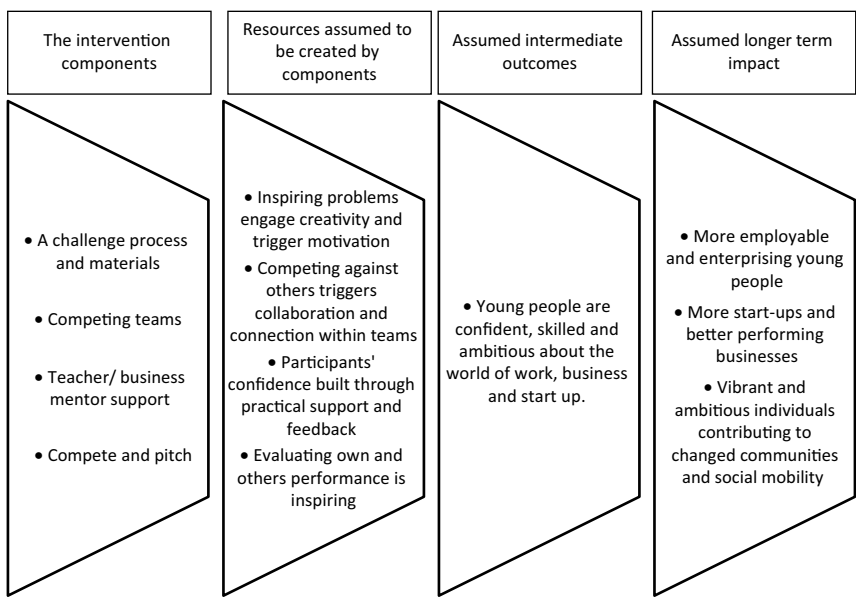


Fig. 1. Conceptualising the Programme Logic for Enterprise Education Competitions.

logic of enterprise education competitions are challenged by theory from other fields which explain *why* the intervention may not lead to the expected interim outcomes (the development of motivation and skills for example), and therefore jeopardises the hoped-for longer-term impact (more employable and enterprising young people, individual and social transformation).

Each of these theories has a pedigree and supporting empirical evidence which provides rich material through which to reconsider the enterprise education competitions model. The following is a short introduction to these.

Achievement Goal theorists distinguish between *performance* goals and *mastery* goals and the different ways these concepts influence the development of skills. Central to a performance goal is the idea that one's skill is evidenced by doing better than others, and that this performance is publicly recognised (Dweck, 1986). As a result, learning and skills development is viewed as a way

The intervention components	Resources assumed to be created by components	Theories which challenge these assumptions	Assumed intermediate outcomes (or not)	Assumed longer term impact (or not)
<div><ul style="list-style-type: none">• A challenge process and materials• Competing teams• Teacher/ business mentor support• Compete and pitch</div>	<div><ul style="list-style-type: none">• Inspiring problems engage creativity and trigger motivation• Competing against others triggers collaboration and connection within teams• Participants' confidence built through practical support and feedback• Evaluating own and others performance is inspiring</div>	<div><ul style="list-style-type: none">• Achievement Goal Theory - teams prioritise performance over mastery; goals are external ('win' or 'don't lose'), rather than internal ('the joy of the task')• Self Determination Theory - extrinsic rewards are controlling, undermine intrinsic motivation and toxify relationships• Social Reproduction - the playing field <i>isn't</i> level and social and economic inequalities between students, schools and communities are reproduced• Social Comparison Theory - unfavourable social comparisons damage self-worth and motivation</div>	<div><ul style="list-style-type: none">• Young people are confident, skilled and ambitious about the world of work, business and start up (or not)</div>	<div><ul style="list-style-type: none">• More employable and enterprising young people (or not)• More start-ups and better performing businesses (or not)• Vibrant and ambitious individuals contributing to changed communities and social mobility (or not)</div>

Fig. 2. Theory Which Challenges the Logic of Enterprise Education Competitions

to achieve a desired goal, rather than an end in itself. Consequently, if considerable effort is invested but does not lead to success it can lead to a negative evaluation of competences (Ames, 1992), and disengagement from developing that skill. In contrast, mastery goals focus on the intrinsic value of learning and utilising effort to develop skills and competences (Dweck, 1986). Crucially then, a competitive process may incentivise *performance outcomes* to be prioritised over *skill development*. For example, in a group working on a competitive pitch, those who might benefit most from developing presentation skills are least likely to take the lead, despite being in the greatest need of development (McCullough, Devezer, & Tanner, 2016).

Self-Determination theorists (Deci & Ryan, 1985), find that extrinsic motivation (doing something because it leads to a separable outcome), is different from intrinsic motivation (doing something for its inherent satisfaction, fun or challenge). According to Ames and Ames (1984), competitions necessitate measuring one's own performances against that of others, which can tend to decrease intrinsic motivation, and those who lose may feel embarrassed, humiliated or develop a loser's psychology, if they lose consistently (Good & Brophy, 2008). In educational research, direct comparisons on the effects of competition with cooperation have been found in favour of cooperation in motivating achievement in classroom settings (Ames, 1984; Ames & Ames, 1992; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981).

Social Comparison theory (Festinger, 1954), states that our sense of self is determined by making comparisons between ourselves and others, in order to evaluate ourselves. If a student compares himself and his performance unfavourably with others, it threatens, not inspires, their self-worth and motivation (Meece, Anderman, & Anderman, 2006). This effect is reflected in the negative outcomes researchers found when they talked to students from lower socioeconomic backgrounds: 'When meeting other groups at regional meetings or at competitions, the pupils from the lower socio-economic background felt underprivileged, backward and less capable' (Heilbrunn & Almor, 2014, p. 8). Psychologists have identified that peer excellence can have the opposite effect of inspiration if students believe that their peers' excellent level of performance is out of their reach. Discouragement-by-Peer-Excellence-Effect' (Rogers & Feller, 2016), challenges the notion that students will *automatically* be inspired by and learn from their peers, if being exposed to their excellent performance makes them feel less capable of performing at the level of those peers.

Social Reproduction theorists describe how cultural and social dispositions of the wealthy are recognised and valued by teachers, and how institutional procedures in education make children with these dispositions appear brighter and more articulate (Bourdieu & Passeron, 1977). Consider a key element of competitions – the public presentation, or pitch. This element represents a litmus test for finalists but may favour teams from socially advantaged backgrounds. Patterns of talk and interaction constitute a manifestation of class differences (Bernstein, 2009; Savage et al., 2015), and elevator pitches and other forms of interaction with the jury mean that socially advantaged teams who have the existing social skills to make the right impression may be more likely to be crowned winners. It

has been said that the iniquitous effects of social class in education is a ‘monster that grows in proportion to its neglect’ (Reay, 2006, p. 289). Paying closer attention to the context and effect of class in enterprise education competitions must be a priority, given the significant claims made in policy and guidance about the social value of such provision.

Phase 5 – Fieldwork to Socialise the Investigation...

During this study, a number of opportunities were developed to socialise the work with primary and secondary educators. This included sharing the research with teachers already involved in the development of enterprise education, discussing informally with colleagues and academics in the field, and presenting at conferences. On one occasion, only a few minutes into a workshop, an educator interjected with an example of how they had witnessed first-hand the adverse side-effects of competitions, describing how a group of pupils competing against other, more socially advantaged schools, were left feeling out of place and disenfranchised. Following this, other workshop participants went on to share feelings of reticence towards competitions and their outcomes. These interactions exposed a gap between what experienced school enterprise educators felt *they* believed enterprise was – broader and more inclusive conceptions as described by Lackéus (2016) and Rae (2010) – and how they felt colleagues perceived enterprise: private values colonising public life and enterprise education as a Trojan horse for neoliberalism (Komulainen et al., 2014). In particular, the use of competitions *was* problematic for some practitioners and intense discussion took place about their use in primary and secondary education. On a more general level, such differences are reflected in research (Fülöp, 2000), where educators from different countries, and with specific historical traditions and cultural distinctions demonstrate various emotional reactions to, and perceptions of, competition. We were particularly interested in how questioning the theory of competitions opened up a space for educators to be critical. This sort of critical feedback is important for those who value enterprise and entrepreneurship in education to take on board. Previously, practitioners and policy makers *inside* enterprise education might have thought of their field as a ‘poor cousin’ in education and learning, that is, somewhat lacking in resources and neglected. Interactions enabled through our field work illuminated an alternative narrative, where the metaphorical relative was not a ‘poor cousin’, but rather a ‘repugnant uncle,’ considered at turns to be ludicrous and revolting by some educators’ colleagues, and towards whom even they themselves felt reticent. Educators’ criticisms related to how competitions and competitive pedagogies jarred with their own, their colleagues and students’ contexts and beliefs, as well as the potentially negative, but rarely acknowledged, outcomes of competitions in enterprise education. Table 1 summarises recurring critical comments expressed by educators.

Phase 6 – Considering Realist ‘Context, Mechanism, Outcome’ patterns

While our field work raised bigger questions about the moral and philosophical dimensions of enterprise education competitions, the focus of our realist study

remained functionally inclined. Pawson deliberately diverges from the critical realist project of finding ‘high moral ground’ from which to ‘sustain the critical edge’; for him, the core task of the realist is not to embrace a political agenda, but instead to pick-up, track and evaluate theories which underlie families of interventions (Pawson, 2006, p. 19). Thus, having surfaced and questioned the logic of enterprise education competitions, we began to consider how to present potentially important contextual factors and mechanisms which may play a role in influencing outcome patterns.

In realist analysis, Context, Mechanism and Outcome are semi-permeable concepts; they *function* as C, M or O in a *particular part* of the analysis (Westthrop, 2017). The examples below, developed with support from a RAMESES⁷ community member Westthrop (2017), demonstrates the different function of motivation in a particular part of the analysis of competitions:

- A competition aims to raise students’ motivation (in this case, motivation is an outcome).
- A competition aims to increase students’ entrepreneurial skills and works, in part, by raising students’ motivation (in this case, motivation is a mechanism).
- A competition will work best for students who already have high motivation (in this case, motivation is a context).

And, of course, there could be the case where a competition aims to raise motivation (interim outcome and mechanism) in order to develop entrepreneurial skills (higher-level outcome) and which works best for students with moderate levels of motivation (it wasn’t effective for those who already had high levels of motivation as there was no room for improvement, or for those with the lowest levels of motivation as they needed a different intervention).

Table 1. Critical Themes Expressed by Educators During Field Work Phase.

	Critical themes expressed by educators:	Theme reflected in:
Context	Competitions are out of step with the values of young people, who are more inclined to want to work together to make a difference.	Lackéus (2015)
	Competitions don’t sit well with my colleagues, who view them as part of a wider, failing, neo-liberal system which normalises inequality and selection.	Komulainen, et al. (2014)
Outcomes	Competitions are de-motivating for losers. A competition means you ‘step in’ more – the focus is on ‘getting it right’ rather than learning.	Good and Brophy, (2008) Ames (1992)
	Competitions don’t increase social mobility because the playing field isn’t level.	Heilbrunn and Almor (2014)

A key aim of realist research is to be able to communicate clearly and quickly important information which may be useful to policy makers and practitioners and spark common sense recognition (Jagosh, 2017). Attempting to identify all CMO combinations is a task which would be not only beyond the scope of this chapter, but questionable, *if* it makes the data more difficult for practitioners and policy makers to understand. Instead, our aim is to visually model in an accessible fashion, how contextual and mechanistic factors may combine, in potentially infinite ways, to create different outcome patterns, adverse reactions or side-effects factors for participants in enterprise education competitions. As Pawson (2006) suggests, we should not be disheartened by different outcomes, we should expect them. Instead, our aim should be to try and understand outcome patterns and explore why different interventions seem to work selectively for different participants; indeed, this is the beginning of causal explanation. The factors in Fig. 3 are culled from our reading of the theory which challenges the programme logic of competitions, and are important for those prescribing, designing and delivering competitions to consider. Imagine for a moment how each slider might move into fractionally different positions for each individual in an enterprise education competition, and the complex and diverse reactions each learner may have. These factors are briefly introduced in the following section.

Competitively Inclined Volunteers Versus Competitively Disinclined Conscripts

There is research, often focused on the JA-YE mini-company format, which finds enterprise education competitions positively affects entrepreneurial competence and activity (Johansen, 2011); entrepreneurial knowledge and beliefs (Volery, Müller, Oser, Naepflin, & Rey, 2013); desirability of starting a business (Peterman & Kennedy, 2003); start-up rates (Johansen, 2010) and attitudes to enterprise (Athayde, 2009, 2012), suggesting competitive structures and goals are an effective

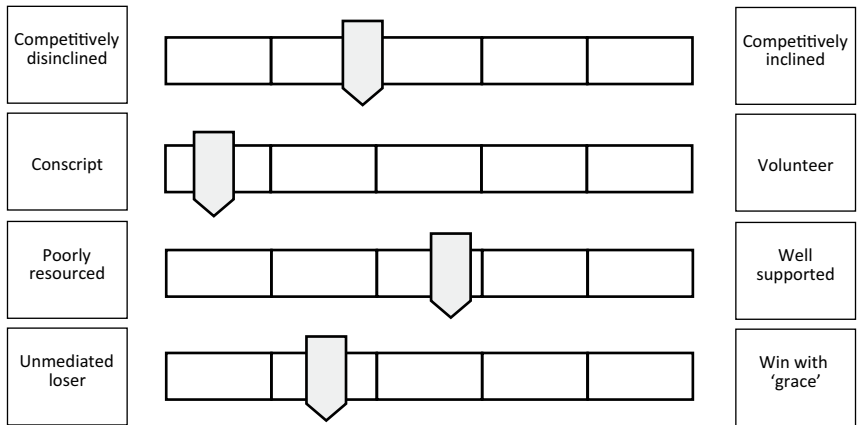


Fig. 3. Factors Which Can Combine in Different Ways to Influence Outcome Patterns in Enterprise Education Competitions.

method. But this intervention, and the longer-term competitions model, is generally understood to comprise students engaging on a voluntary basis and as such may introduce Volunteer Bias, an effect (where the nature of the volunteers causes the positive outcome as opposed to the intervention itself) that is difficult to control for (Goldstein et al., 2015; Heiman, 2002; Keiding & Louis, 2016). The inclinations of students and the appeal (or avoidance), of competitive pedagogies are also influenced by a raft of contextual factors such as family background, gender and socioeconomic status which shape the willingness to compete (Almås, Cappelen, Salvanes, Sorensen, & Tungodden, 2016); the tendency to align oneself with neo-liberal values (O'Flynn & Petersen, 2007) and an individual's entrepreneurial identity (Falck, Heblich, & Luedemann, 2012). These factors may be important in helping to explain why studies where an activity was compulsory (Huber, Sloof, & Van Praag, 2012; Oosterbeek, Van Praag, & Ijsselstein, 2010) demonstrated negative results. These studies described competitive processes where teams of students worked against each other, and ultimately, one would be crowned 'the winner'. Huber et al. (2012) found that while a competitive entrepreneurship programme aimed at primary pupils increased entrepreneurial skills (such as self-efficacy), there was no effect on entrepreneurial knowledge and a slight negative impact on entrepreneurial intention, which declined further over time to be 'significantly negative'. Oosterbeek et al. (2010), assessed the impact of compulsory participation in a leading entrepreneurship education programme on entrepreneurial intentions to be significantly negative. Good and Brophy (2008) identify that forced competition can be experienced as coercive. When weighing up ideas to justify the negative effect of the programme posited that, among other factors, students may not have liked it *because* it was compulsory (Oosterbeek et al., 2010).

Unmediated Losing Versus Winning 'With Grace'

Sukarieh and Tannock (2009), describe how competitive enterprise education was originally conceived to resemble a competitive sport. However, Orlick (1974), found that competing in sports is enjoyable and motivating for winners, but counter-productive for those who do not experience early success. Winning and losing *is* an outcome of competitive activity, and this factor emerged from the literature as significant and interesting, but not in the straightforward 'losers give up' and 'winning is positive' manner one might imagine. Winning has been characterised as beneficial, with Huber et al. (2012), finding a significantly positive effect on the development of pro-activity, self-efficacy and the intention to start a business for children who were members of the *winning team* in a competitive entrepreneurship programme. The negative effects of failure in competitive learning more generally include loser's psychology where individuals and teams who consistently lose suffer losses in confidence and self-concept (Good & Brophy, 2008). But this can be ameliorated by significant, constructive feedback (McAuley & Tammen, 1989; Vansteenkiste & Deci, 2003), to the extent that a loser who experiences significant, constructive feedback can be more motivated than a winner. Equally, winning is not, in itself, necessarily a 'good thing', in

that it appears to predict unethical behaviour, as a result of the inflated sense of entitlement winners develop (Schurr & Ritov, 2016). Hence, a positive win will be one which involves grace (civility, courteousness, decency and respect), and a positive defeat will be one which is mediated through co-constructing valuable meaning and learning through useful and encouraging feedback. Competition can take *qualitatively different* forms and patterns that, combined with individual, situational and cultural factors, will make for happy and/or unhappy competitors (Fülöp, 2009). The practical lesson for policy makers and educators is that they should try to learn as much about these factors, and design activities with them in mind.

Poorly Resourced Versus Well Supported

How well-resourced students are – personally, at school level, in their family and more broadly in their community – seems particularly significant. Being subjected to unfair competition, where one's social and financial disadvantage is highlighted against better resourced competitors, has been observed to be harmful in entrepreneurship education (Heilbrunn & Almor, 2014) and in education more generally (Good & Brophy, 2008; Shindler, 2009). Shindler (2009), distinguishes between healthy and unhealthy competitions in two ways. First, unhealthy competitions implicitly reward advantaged students; that is, the resources that advantaged students are able to bring to bear, as individuals and in terms of school organisation, teacher commitment and family capital, result in a competition which is skewed, and more likely to result in their success. Second, winners are able to use their victory as social or educational capital at a later time; that is those with existing advantage can consolidate and increase their position in relation to others (Van Zanten, 2005). So, an enterprise education competition is an educational strategy which can both constrain or expand opportunity, and it must be recognised that individuals, families, organisations and communities do not have the same resources to enact such strategies.

In conclusion, we have identified a number of factors capable of influencing the outcome patterns observed in enterprise education competitions and provide useful information for practitioners and programme designers. Considering the personal circumstances and inclinations of students; the level of extant resource and available support; the extent to which competition results are unmediated or whether students are supported to co-construct a positive meaning from the experience are all elements which are important for competition promoters and designers to consider. Of course, educators will be able to imagine, or have practical examples of, contradictions to these initial suggested outcome patterns – the poorly resourced learner who lost but took a positive lesson, the conscript who goes on to be an enthusiastic volunteer in subsequent programmes. Fig. 3 cannot be exhaustive in this way; it exists to communicate factors which can influence outcome *patterns*, as suggested by theory and literature in Fig. 2, and to suggest that a little more caution is required with regard to the notion that the assumed benefits of competitions will be realised for all learners, in all contexts.

AN ENTERPRISE EDUCATION COMPETITIONS FALLACY?

Enterprise education competitions are presented in policy and guidance as an effective intervention for increasing motivation, developing skills and rewarding and inspiring pupils. Indeed, the logic models which were analysed and synthesised for this study went much further and incorporate social mobility and inclusion as among the many positive spill over effects. Yet the theory identified and summarised here challenges the logic underpinning enterprise education competitions and demonstrate that the field's most visible intervention has the potential to generate unintended effects. The realist approach has a useful way of conceiving social programmes which points to a fundamental 'enterprise education competitions fallacy'.

In the realist paradigm, researchers *do not* consider a programme (enterprise education competitions in this case), to be a causal agent in its own right (Pawson, 2006). It is *not* interventions that do the changing. As Pawson explains, causal powers *in the treatment* are the unspoken assumption in 'What works?' evidence-based policy making: 'the ointment reduces the rash, the vapour unblocks the airways, the antibiotics act on the micro-organisms, the radiotherapy kills the cancerous cells', all these terms indicate that the active agent resides in the intervention (Pawson, 2006, p. 45). This over simplistic thinking has been imported from evidenced-based medicine to education generally, and enterprise education specifically (Hooley, 2016). But social programmes are not like medicine: 'Subjects may seek out programmes (or not), volunteer for them (or not), find meaning in them (or not), apply the lessons (or not). It is within this interpretative process – or mechanism – that the causal powers of the programme reside' (Pawson, 2006, p. 45). Ultimately then, it is not the 'enterprise education competition' which causes an effect (or not), it is the reaction of different participants. This is the signature argument which distinguishes the realist approach – the crucial feature in realist approaches is to 'look for causal powers within the objects or agents or structures under investigation' (Pawson, 2006, p. 21). Presenting complex programmes as simple treatments is misleading. Practicing a realist approach would involve rejecting the idea that it is the intervention (enterprise education competitions in this case), which has casual powers, and instead pursuing understanding about the ways in which stakeholders think and change their thinking under an intervention, and the particular individual, interpersonal, institutional and infra-structural contexts which influence this thinking (Pawson, 2006). Such an approach may contribute to extending the evidence-based policy conversation beyond 'What works?' and towards 'What works, for whom, in what circumstances and *why*'?

CONCLUDING COMMENTS

Competitions may *present* themselves as a reasonable and easy-to-replicate strategy to create fun and drama in the short term, raise awareness of business and enterprise and engage the private sector, but these perceived benefits may

obscure adverse reactions for some participants. If one accepts that developmental experiences can shape deep beliefs (Krueger, 2007), then just as positive experiences arising from competing could be beneficial, negative experiences could be damaging. *Winning* has been shown to be beneficial for entrepreneurial intentions (Huber et al., 2012), but this is mathematically unlikely for the majority of participants, leading to the possibility that losing is a mechanism for denting students entrepreneurial intentions. It has been argued that enterprise and entrepreneurship programmes can be considered a success if they dampen unrealistic expectations and fulfil a type of 'sorting' according to aptitude and ability (Von Graevenitz, Harhoff, & Weber, 2010). However, research in mainstream education has shown that such processes are rarely neutral, and children and young people from lower socio-economic groups are more likely to be failures due to the expectations of others and the opinions and actions of decision makers (Boaler, William, & Brown, 2000). And, crucially, are we comfortable that such 'sorting' is put into motion at secondary school level? At primary school level? And that the mechanism may well be connected to the design of the intervention itself rather than self-selection out of the activity?

Making clear the possible side-effects in the competitions prescription issued by policy makers may provide a greater sense of credibility wished for by experienced practitioners, and the level of detail required by novice practitioners in order to make informed decisions about enterprise education design, practice and provision. Describing what else teachers could do, in ways which can be understood and enacted with little support (given the time and resource constraint which many educators find themselves operating within), is important, as there is no widely promoted alternative to one day challenges and long-term competitions in enterprise education. As the research, policy and guidance consulted for this study highlight, the results expected from enterprise education competitions is broad and staggering: entrepreneurial awareness and intent, an astonishing array of soft skills and an impressive list of medium- to long-term outcomes for the economy and society. Drawing a line between a specific component of enterprise education competitions and an observed outcome is challenging but necessary in order to know 'what forms of activity work, for what purpose, leading to what changes in student behaviour, activity and choice' (Pittaway & Cope, 2007, p. 495). Let us assume competitions can provide a boost to motivation for some participants, what is it that is causing that reaction? Is it the interaction with employers or entrepreneurial role models? Is it interaction with peers? Is it an excellent facilitator? Is it context or person-specific factors? This chapter is an initial attempt at demonstrating the usefulness of a realist approach to address such questions. Further and deeper work is needed to articulate causal chains which explain the steps between competition interventions and their intended (and unintended) outcomes. Kurt Lewin (1943), wrote there is nothing more practical than a good theory. In this case, we hope that exploring enterprise education competitions through a theory-driven realist logic of enquiry provides practitioners and policy makers with insights to influence a re-appraisal of the theoretical assumptions which underpin their promotion and use.

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NOTES

1. For example, the GEW get in the ring competition – <https://getinthering.co/partners/global-entrepreneurship-week/>.
2. For example, The value of investing in entrepreneurship education and in particular mini company programmes in schools – <http://content.ee-hub.eu/EE-HUB/National-Policies/Research-on-the-impact-of-the-JA-Company-Programme>.
3. Sir Anthony Seldon ‘Schools need to be like Dragons Den’ – <https://www.thesun.co.uk/news/2538979/schools-should-be-like-dragons-den-to-prepare-them-for-the-21st-century-says-sir-anthony-seldon/>.
4. <https://educationendowmentfoundation.org.uk/about/history/>
5. Appendix 1 – European Commission policy and guidance studied.
6. Appendix 2 – Broad Theories of Change consulted for this study.
7. RAMESES – an online community interested in applying realist approaches in evaluation, synthesis, review and research: <https://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=RAMESES>.

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APPENDIX 1: EUROPEAN COMMISSION POLICY AND GUIDANCE STUDIED

All the reports are publicly available on the following websites.
https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education_en
https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education/commission-actions_en
https://ec.europa.eu/growth/smes/promoting-entrepreneurship/support/education/projects-studies_en

Table A1. European Policy and Guidance Reports on Entrepreneurship Education in Schools, Colleges and VET (non-HE settings), 2006–2016.

Year	Title	Source
2006	The Oslo Agenda for Entrepreneurship Education in Europe.	European Commission.
2009	Entrepreneurship in Vocational Education and Training. Final report of the Expert Group.	European Commission for Enterprise and Industry.
2010	Towards Greater Cooperation and Coherence in Entrepreneurship Education: Report and Evaluation of the Pilot Action High Level Reflection Panels on Entrepreneurship Education Initiated by DG Enterprise and Industry and DG Education and Culture.	European Commission.
2011	Guidance Supporting Europe’s Aspiring Entrepreneurs. Policy and Practice to Harness Future Potential.	CEDEFOP – European Centre for the Development of Vocational Training.
2011	Entrepreneurship Education: Enabling Teachers as a Critical Success Factor. A Report on Teacher Education and Training to Prepare Teachers for the Challenge of Entrepreneurship Education.	European Commission.
2012	Entrepreneurship Education at School in Europe. National Strategies, Curricula and Learning Outcomes.	European Commission.
2012	Building Entrepreneurial Mindsets and Skills in the EU. A Smart Guide on Promoting and Facilitating Entrepreneurship Education for Young People with the Help of EU Structural Funds.	European Commission.
2013	Entrepreneurship Education: A Guide for Educators.	European Commission.
2015	Entrepreneurship Education: A Road to Success. 13 Case Studies Prepared for the study ‘Compilation of Evidence on the Impact of Entrepreneurship Education Strategies and Measures.’	European Commission.
2015	Entrepreneurship Competence: An Overview of Existing Concepts, Policies and Initiatives.	European Commission, Joint Research Centre.

APPENDIX 2: BROAD THEORIES OF CHANGE CONSULTED FOR THIS STUDY

- Braag, S., & Henry, N. (2011). Order 121-Study on Support to Indicators on Entrepreneurship Education. Framework Contract No. EAC, 19(06). Retrieved from https://www.ab.gov.tr/files/ardb/evt/1_avrupa_birligi/1_9_politikalar/1_9_4_egitim_politikasi/entrepreneurship_en.pdf
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- Lemus, M. (2015) Outcomes map: Enterprise education and employability. Young Enterprise. Retrieved from https://www.young-enterprise.org.uk/wp-content/uploads/2015/01/Outcomes-map_Jan-2014.pdf